



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,052	03/17/2004	Kunio Watanabe	403006/TAKADA	1711

23548 7590 03/19/2007
LEYDIG VOIT & MAYER, LTD
700 THIRTEENTH ST. NW
SUITE 300
WASHINGTON, DC 20005-3960

EXAMINER

ROSASCO, STEPHEN D

ART UNIT	PAPER NUMBER
----------	--------------

1756

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

8

Office Action Summary

Application No.

10/802,052

Applicant(s)

WATANABE, KUNIO

Examiner

Stephen Rosasco

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

In response to the Amendment of 1/26/07 wherein claims 5, 7-20 were canceled and claim 21 was added, the examiner withdraws the prior office action rejections and includes a new rejection here based on newly cited art. Claim 21 is indicated as allowable.

Remarks – the applicant has argued that none of the cited prior art describes a photomask, for the purpose of measuring flare, or for any other purpose, in which the photomask includes three separate portions, the central pattern portion, an open portion, and a peripheral pattern portion, arranged as described in those claims, and consisting of linear portions of the light-shielding material, all of which are parallel to each other.

However, only the preamble to claim 21 recites that the mask is for measuring flare.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1-4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al. (6,986,973).

The claimed invention is directed to a photomask having a pattern on a substrate and composed of a material transmitting exposing light and light-shielding portions of a

material that does not transmit the exposing light, said pattern comprising: a central pattern portion having a plurality of line patterns, leaving a predetermined distance on a central portion of the substrate; and a peripheral pattern portion located proximate a peripheral portion of said substrate, surrounding the central pattern portion.

The applicant discusses the limitations of the prior art in that as the wavelength of the exposing light becomes shorter, the region affected by local flare becomes smaller, but the intensity of local flare is considered to increase. Therefore, it is considered that the effect of the use of shorter wavelength on the line width of the transferred pattern becomes too larger to ignore. It is therefore important to correctly know the effect of local flare.

Yao teaches the claimed mask (see Figs. 13-16 and cols. 9-10)

(74) FIG. 13 is a schematic diagram showing the general configuration of a test pattern of a test photomask which is a component of a flare evaluating apparatus according to a modified example 4 of the first embodiment.

This test pattern is constituted by a line pattern 1 which becomes a pattern under measurement and a pair of linear patterns 51, which becomes a flare causing pattern forming light transmission regions which have the line pattern 1 intervening therebetween to be parallel thereto and causes local flare to occur on the line pattern 1. Such linear patterns have an advantage that they are formed more easily than the zone pattern or the polygonal pattern.

Art Unit: 1756

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Stephen Rosasco whose telephone number is (571) 272-1389. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM. The Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in dark ink, appearing to read 'S. Rosasco', with a stylized, elongated initial 'S'.

S. Rosasco
Primary Examiner
Art Unit 1756

S. Rosasco

03/13/07